

REMARKS

By the above amendment, informalities in the specification have been corrected, claims 30, 33 and 36 have been canceled without prejudice or disclaimer of the subject matter thereof, and the remaining claims have been amended to clarify features thereof, including amendment of claim 38 in the manner as suggested by the Examiner so as to overcome the rejection of such claim under 35 USC 112, second paragraph, as will be discussed below.

As to the provisional rejection of claims 28-30 and 38-39 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 29-30 and 37 of copending Application No. 09/986,577 in view of Gallarda et al (USPN 6,539,106), applicants note that the rejection is provisional in that claims of the copending application have not been allowed. However, without acquiescing in the propriety of the rejection, in order to eliminate such provisional rejection at this time, submitted herewith is a Terminal Disclaimer and the appropriate statutory fee therefor, so that as recognized by the Examiner, this rejection should now be overcome.

As to the rejection of claims 28 - 29, 38 - 39 under 35 USC 102(e) as being anticipated by Gallarda et al (USPN 6,539,106); the rejection of claim 30 under 35 USC 103(a) as being unpatentable over Gallarda et al (USPN 6,539,106) in view of Somekh et al (USPN 6,763,130, hereinafter Somekh); the rejection of claims 31-37 under 35 USC 103(a) as being unpatentable over Gallarda et al (USPN 6,539,106) in view of Matsui et al (USPN 5,850,467, hereinafter Matsui); the rejection of claims 41-42 under 35 USC 103(a) as being unpatentable over Gallarda et al (USPN 6,539,106) in view of Ikenaga (USPN 4,989,156); such rejections are traversed

insofar as it is applicable to the present claims and reconsideration and withdrawal of the rejection are respectfully requested.

As to the requirements to support a rejection under 35 USC 102, reference is made to the decision of In re Robertson, 49 USPQ 2d 1949 (Fed. Cir. 1999), wherein the court pointed out that anticipation under 35 U.S.C. §102 requires that each and every element as set forth in the claim is found, either expressly or inherently described in a single prior art reference. As noted by the court, if the prior art reference does not expressly set forth a particular element of the claim, that reference still may anticipate if the element is "inherent" in its disclosure. To establish inherency, the extrinsic evidence "must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill." Moreover, the court pointed out that inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.

As to the requirements to support a rejection under 35 USC 103, reference is made to the decision of In re Fine, 5 USPQ 2d 1596 (Fed. Cir. 1988), wherein the court pointed out that the PTO has the burden under '103 to establish a prima facie case of obviousness and can satisfy this burden only by showing some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the references. As noted by the court, whether a particular combination might be "obvious to try" is not a legitimate test of patentability and obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching or suggestion supporting the combination. As

further noted by the court, one cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention.

Furthermore, such requirements have been clarified in the decision of In re Lee, 61 USPQ 2d 1430 (Fed. Cir. 2002) wherein the court in reversing an obviousness rejection indicated that deficiencies of the cited references cannot be remedied with conclusions about what is "basic knowledge" or "common knowledge".

The court pointed out:

The Examiner's conclusory statements that "the demonstration mode is just a programmable feature which can be used in many different device[s] for providing automatic introduction by adding the proper programming software" and that "another motivation would be that the automatic demonstration mode is user friendly and it functions as a tutorial" do not adequately address the issue of motivation to combine. This factual question of motivation is immaterial to patentability, and could not be resolved on subjected belief and unknown authority. It is improper, in determining whether a person of ordinary skill would have been led to this combination of references, simply to "[use] that which the inventor taught against its teacher."... Thus, the Board must not only assure that the requisite findings are made, based on evidence of record, but must also explain the reasoning by which the findings are deemed to support the agency's conclusion. (emphasis added)

By the present amendment, the claims have been amended to clarify and recite features of the present invention as described in paragraphs [0027] - [0031], for example, in which a mask region 42, as illustrated in Fig. 7 is inputted for display on the display as shown in Figs. 6 and 7 of the drawings of this application, for example, wherein the image display part 56 of the display screen displays an actual image of a defect and the map display part 55 of the display screen displays a map of locations of defects on the object substrate as well as a mask region in which defects are not to be detected as an extracted defect. As described in connection

with Fig. 14, for example at paragraphs [0066], et. seq. a mouse operation command button and a mouse are utilized for inputting information concerning the mask region 42 for display on the display means and in accordance therewith, defects appearing in the mask region are not detected and extracted. By the present amendment, the aforementioned features have been recited in each of the independent and therewith the dependent claims of this application. For example, referring to claim 28, this claim has been amended to recite that "the pre-registered region or the pre-registered pattern is inputted and displayed on a display screen" as well as "displaying on the display screen an actual image of a defect among the defects detected together with display on the display screen of positional distribution data of the defects detected on said object substrate in a map format". That is, referring to Figs. 13 and 14, the current position indicator 59 is placed over one of the symbols of the pattern defects 11 representing display in a map format in which the mask region 42 is also displayable in the image display part 55 of the display screen, and an actual image of the defect on which the current position indicator 59 is placed is displayed in the image display part 56 of the display screen, as described in the specification of this application. The other independent claims have been amended in a substantially similar manner and applicants submit that such features are not disclosed or taught in the cited art as will become clear from the following comments.

Irrespective of the Examiner's contentions concerning Gallarda et al, and the Examiner's contention that this patent discloses a display having the screen on which a digital image of the detected defect is displayed together with positional information of the detected defect in a map form referring to Fig. 3 and numeral 345, applicants submit that Gallarda et al does not disclose or teach that the pre-registered region or the pre-registered pattern is inputted and displayed on a display

screen, as recited in claim 28, and the similar features as recited in the other claims of this application, nor the feature of displaying on the display screen an actual image of a defect among the defects detected together with display on the display screen of positional distribution data of the defects detected on said object substrate in a map format. That is, column 6, lines 32 - 35 of Gallarda et al indicates that at step 345, intermediate images and results, such as a map of defects and statistics about defect location, size, type, etc. are optionally displayed for monitoring by a human operator on a display screen 350. Applicants submit that such display as described in Gallarda et al is not a display of an actual digital image of the detected defect which, in accordance with the present invention, is displayed on the image display part 56 of the screen of the display as shown in Fig. 13 of the drawings of this application, and which is displayed together with positional information of the detected defect in a map format on the map display part 55 of the screen of the display. Irrespective of the contentions by the Examiner, Gallarda et al does not disclose or teach such features in the sense of 35 USC 102 or 35 USC 103. Further, as pointed out above, there is no disclosure or teaching in Gallarda et al of inputting information of a pre-registered region for display on the screen, as recited in the independent claims of this application. Thus, applicants submit that all claims present in this application, i.e., claims 28, 29, 31, 32, 34, 35 and 37 - 42 patentably distinguish over Gallarda et al in the sense of 35 USC 102 and 35 USC 103 and should be considered allowable thereover.

As to the combination of Gallarda et al with Somekh et al, Matsui et al or Ikenaga, applicants submit that irrespective of the disclosure and teachings of these additional references, none of such additional references overcome the deficiencies of Gallarda et al as pointed out above. Thus, as recognized by the Examiner,

Gallarda et al does not explicitly disclose that data regarding the mask region is output and further does not disclose that such mask region or pre-registered region is displayed. As to Somekh et al, the Examiner contends that this patent discloses a wafer defect map where the entire wafer is shown (Figure 4) with the Examiner suggesting that if the entire wafer is shown then the data regarding the mask region is also shown. Contrary to the position set forth by the Examiner, Figure 4 of Somekh et al merely illustrates a defect map produced by an inspection tool in accordance with such patent and does not disclose display of a masked region and further does not disclose or teach that a defect map is displayed together with an enlarged image of a defect as obtained by the display parts 55 and 56 of a display screen, in accordance with the present invention and it cannot be considered obvious to provide such features based upon the disclosures of Gallarda and Somekh et al in the sense of 35 USC 103.

Likewise, irrespective of the disclosure of Matsui et al, such patent does not overcome the deficiencies of Gallarda et al as pointed out above, and whether or not Matsui et al discloses enlarging an image, there is no disclosure or teaching of displaying of a masked region and thereafter, display on a display screen of defects detected in a map format together with display on the screen of an actual enlarged image of a defect as recited in the independent and dependent claims of this application. Thus, these features also patentably distinguish over this proposed combination of references in the sense of 35 USC 103.

With regard to the combination of Ikenaga with Gallarda et al, the Examiner cites Ikenaga for disclosing outputting CAD data. Irrespective of this disclosure, Ikenaga, like Gallarda et al, fails to disclose display of a masked region on a display screen and thereafter simultaneous display of detected defects in a map format on

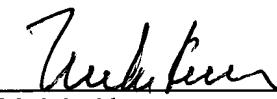
the display screen together with an actual enlarged image of a defect as displayed on the screen parts 55 and 56 in accordance with the present invention. Thus, applicants submit that all claims present in this application patentably distinguish over these proposed combinations of references in the sense of 35 USC 103 and should be considered allowable thereover.

In view of the above amendments and remarks, applicants submit that all claims patentably distinguish over the cited art and should now be in condition for allowance noting that the provisional obviousness-type double patenting rejection has been overcome by the submission of a Terminal Disclaimer. Accordingly, issuance of an action of a favorable nature is courteously solicited.

To the extent necessary, applicants petition for an extension of time under 37 CFR 1.136. Please charge any shortage in the fees due in connection with the filing of this paper, including extension of time fees, to the deposit account of Antonelli, Terry, Stout & Kraus, LLP, Deposit Account No. 01-2135 (Case: 501.40830X00), and please credit any excess fees to such deposit account.

Respectfully submitted,

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